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17. A receiver as in claim 16 wherein each base station modulates the transmitted data and reference symbols, wherein broadcast channel messages include data symbols spread by the long code and the second short code, in which said DLL has a second output to provide the despread 5 broadcast channel data and reference symbols, and each said broadcast channel RAKE receiver finger further comprising:

- a broadcast channel estimation and weighting circuit having an input operatively connected to said DLL second output to receive the despread broadcast channel reference and data symbols, said broadcast channel estimation and weighting circuit demodulating the broadcast channel reference symbols to determine the assigned transmission path weights and phase shifts, and to estimate weights and phase shifts to apply during the demodulation of broadcast and traffic channel data symbols, said broadcast channel finger estimation and weighting circuit having a first output to provide the demodulated broadcast channel data symbols, and a second output to provide weight and phase shift estimations for use with the traffic channel of the assigned transmission path.
- 18. A receiver as in claim 17 further comprising:
- a first summing circuit having a plurality of inputs operatively connected to said broadcast channel estimation and weighting circuit first output of each said broadcast channel RAKE receiver finger, said first summing circuit combining the demodulated broadcast channel data symbols to provide an output with demodulated broadcast channel data symbols having an improved signal to noise ratio, whereby multipathed broadcast channel messages are combined.
- 19. A receiver as in claim 18 wherein the base station assigns a third short code to each mobile station, which is unique for each mobile station, and transmitted traffic channel data symbols are spread with the third short code, in which said broadcast channel DLL has a third output to provide the long code despread signal which is a product of the long code multiplied by broadcast and traffic channel messages, and in which each finger of said traffic channel RAKE receiver corresponds to a finger of said broadcast channel receiver having the same assigned transmission path, each said traffic channel RAKE receiver finger comprising:
 - a traffic channel code generator to generate the third short code, said traffic channel code generator having an input operatively connected to said DLL first output to accept the first chip rate clock signal, and an output to provide the mobile station's assigned third short code at a rate matching the traffic channel message received on that transmission path; and
 - a traffic channel mixer having a first input operatively connected to said traffic channel short code generator output, a second input operatively connected to said 55 DLL third output in said corresponding broadcast channel finger, to accept the long code despread signal, and an output to provide the despread traffic channel data symbols.
- **20.** A receiver as in claim **19** in which each said traffic $_{60}$ channel finger further comprises:
 - a traffic channel estimation and weighting circuit having a first input operatively connected to the output of said traffic channel mixer to accept the despread traffic channel data symbols, a second input operatively connected to said broadcast channel estimation and weighting circuit second output in said corresponding broad-

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cast channel finger, said traffic channel estimation and weighting circuit accepting the estimated weights and phase shifts from the broadcast channel estimation and weighting circuit to aid in the demodulation of the traffic channel data symbols, said traffic channel finger estimation and weighting circuit having a first output to provide the demodulated traffic channel data symbols.

21. A receiver as in claim 20 in which said traffic channel estimation and weighting circuit demodulates the traffic channel reference symbols to determine the assigned transmission path weights and phase shifts, and estimates the weights and phase shifts for application in the demodulation of traffic channel data symbols.

22. A receiver as in claim 21 further comprising:

- a second summing circuit having a plurality of inputs operatively connected to said traffic channel estimation and weighting circuit output of each said traffic channel RAKE receiver finger for a transmitting base station, said second summing circuit having an output to provide the sum of the demodulated traffic channel data symbols for each transmission path from a base station, whereby the signal to noise ratio of the received information is improved by combining signals of each transmission path.
- 23. A receiver as in claim 22 wherein the base station transmissions are radiated through space, and further comprising:
 - a first antenna having an input to accept the radiated transmissions of the base stations and an output to provide broadcast and traffic channel messages;
 - a second antenna having an input to accept the radiated transmissions of the base stations and an output to provide broadcast and traffic channel messages;
 - a second filter matched to despread the broadcast channel special timing symbol, said second matched filter having an input operatively connected to said second antenna output to accept the broadcast channel special timing symbols received for each transmission path from a base station to said second antenna, and a first output to provide the despread special timing symbols for each transmission path, whereby a timing pulse is provided;
 - in which said first matched filter input is operatively connected to said first antenna output to accept the broadcast channel special timing symbols received for each transmission path from a base station to said first antenna.
 - in which said timing and code management circuit includes a third input operatively connected to said second matched filter output; and
 - in which each said broadcast channel RAKE receiver finger includes a switch having a first input operatively connected to said first antenna output, a second input operatively connected to said second antenna output, and an output operatively connected to said DLL second input to selectively supply the broadcast and traffic channel messages from alternate antennas, whereby the diversity of two antennas is used to increase the signal to noise ratio of the demodulated messages.
- 24. A receiver as in claim 22 wherein traffic channel RAKE receiver fingers are grouped by transmitting base station, wherein the receiver receives communications from at least two base stations, and further comprises:
- a logic unit operatively connected to the receiver to receive broadcast channel multiplex timing information from each said broadcast channel RAKE finger, and to